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Indian Standard

IS: 11663 - 1986



CONVENTIONAL REPRESENTATIONS OF COMMON FEATURES AND MATERIALS ON TECHNICAL DRAWINGS

- 1. Scope Covers conventional representation of some common features and materials on technical drawings.
- 1.1 It does not cover the representation of threaded parts, springs and gears.
- 2. Common Features
- 2.1 Conventional representation is adopted in case where complete delineation of the part would involve unnecessary drawing time or space. A few typical examples are shown in Table 1 and Fig. 1.
- 3. Hatching
- 3.1 Hatching may be used to indicate type of materials in sections.
- 3.2 If different types of hatching are used to indicate different materials, the meaning of hatching shall be clearly defined on the drawing, or by reference to appropriate standards.
- 3.3 Convention of representation of some common materials with the aid of hatching are shown in Table 2.
- 3.4 Recommended conventions for building materials shall be as specified in IS: 962-1967 'Code of practice for architectural and building drawings (first revision)'.

EXPLANATORY NOTE

IS: 696 'Code of practice of general engineering drawings' was originally published in 1955 and was revised in 1960 as a consequence of changeover to metric system of weights and measures. The second revision of the standard was carried out in 1972 to bring the standard more in line with recommendation published by the Technical Committee TC 10, Technical drawings of the International Organization for Standardization (ISO).

ISO has published a number of standards on various subjects covered in IS: 696-1972 and these ISO standard have been adopted as national standard, thus superseeding the relevant subject matter covered in IS: 696-1972.

Following standards were published as a measure to harmonize the national standards with International standards on the subjects mentioned below:

IS: 10715-1983 Indian standard presentation of threaded parts on technical drawings ISO 6410-1981

IS: 10716-1983 Indian standard rules for representation of springs on technical drawings ISO 2162-1973

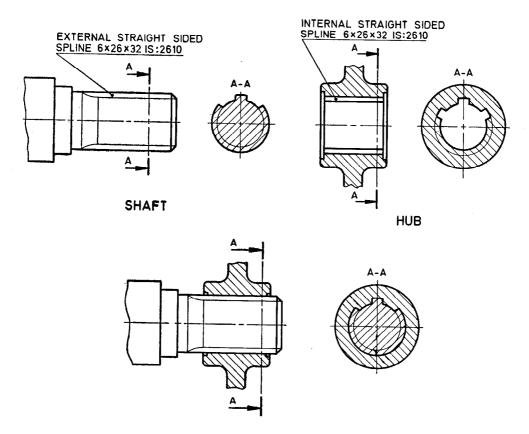
IS: 10717-1983 Indian standard conventional representation of gears on technical drawings ISO 2203-1973

This standard covers the conventional representation of features and materials covered in IS: 696-1972 which however has not been covered in the standards mentioned above.

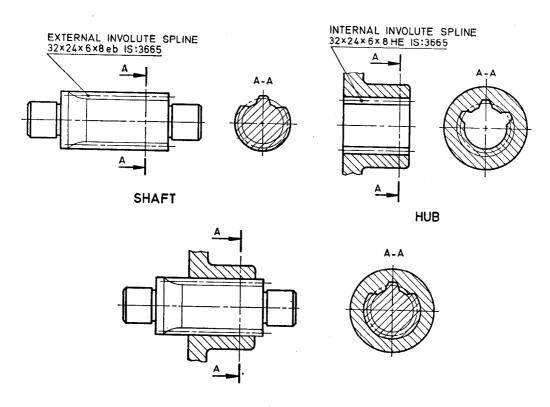
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STRAIGHT SIDED SPLINES IN ASSEMBLY



INVOLUTE SPLINES IN ASSEMBLY

FIG. 1 REPRESENTATION OF SPLINED AND SERRATED SHAFTS AND HUBS

TABLE 1 CONVENTIONAL REPRESENTATION OF COMMON FEATURES (Clause 2.1)

(Clause 2.1)					
TITLE	ACTUAL PROJECTION/SECTION	CONVENTION			
SLOTTED HEAD		TO BE DRAWN AT 45°			
RADIAL RIBS					
SERRATED SHAFT	ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ				
SPLINED SHAFT	5				
RATCHET AND PINION					
BEARINGS					
STRAIGHT KNURLING					
DIAMOND KNURLING					
REPEATED PARTS					

TABLE 2 CONVENTIONAL REPRESENTATION OF MATERIALS, USING HATCHING (Clause 3.3)

Туре	Convention	Material
Metals		Steel, cast iron, copper and its alloys, aluminium and its alloys, etc
Metals		Lead, zinc, tin, white-metal, etc
Glass	1/1. 1/1. 1/1.	Glass
Packing and insulating material		Porcelain, stoneware, marble, etc
		Asbestos, fibre, felt, synthetic resin products, paper, cork, linoleum, rubber leather, wax, insulating and filling materials
Liquids		Water, oil, petrol, kerosine, etc
Wood		Wood, plywood, etc
Concrete		-
Stacked lamination		-